

PROCEEDINGS
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DESCRIPTIONS OF NINE NEW NORTH AMERICAN
PIKAS.

BY ARTHUR H. HOWELL.

Study of the North American pikas of the genus *Ochotona* has resulted in the discovery of a number of new forms, nine of which are here named in advance of a revision of the group now in preparation.

Ochotona princeps lutescens, subsp. nov.

Type.—No. 108,650, U. S. National Museum, Biological Survey collection; adult ♂, skin and skull; from Mt. Inglesmaldie, near Banff, Alberta; collected July 26, 1899, by G. F. Dippie; original number 193 (2973, "X" catalogue).

Subspecific characters.—Similar to *princeps*, but smaller; coloration decidedly paler, both above and below.

Color.—*Type* (acquiring summer pelage): Upperparts mixed pinkish buff and fuscous, darkest in the middle of the back, shading to clear pinkish buff along sides; hinder back (in worn winter pelage) smoke gray, blotched with pinkish buff and fuscous; ears hair-brown, broadly margined with light buff and clothed inside with buffy white hairs; feet creamy white, faintly washed with pinkish buff; soles drab; palms pale olive-buff; underparts creamy white, faintly washed with pale pinkish buff, chiefly along median line.

Skull.—Averaging decidedly smaller than that of *princeps*, with shorter nasals.

Measurements.—Average of 8 adults (4 males, 4 females) from Canmore, Alberta: Total length, 177 (170-188); hind foot, 29.4 (26-31). *Skull* (of type, adult male): Occipito-nasal length, 43.3; zygomatic breadth, 21.6; breadth of cranium, 18; interorbital breadth, 5.3; width of palatal bridge, 2; length of nasals, 13.9.

Remarks.—This race is a strongly characterized form occupying, apparently, the ranges in southern Alberta lying to the eastward of the main divide of the Rocky Mountains. A considerable series has been examined from the vicinity of Banff, and a few from Mt. Forget-me-not, Alberta.

Ochotona uinta ventorum, subsp. nov.

Type.—No. 176,778, U. S. National Museum, Biological Survey collection; ♂ adult, skin and skull; from Fremont Peak, Wind River Mountains, Wyoming; collected July 19, 1911, by H. E. Anthony; original number 395.

Subspecific characters.—Size of *uinta*; color in winter pelage paler and more grayish (less buffy); hind feet paler; summer pelage less intensely buffy, both dorsally and ventrally. Compared with *princeps*: Size larger; color in both pelages paler (less blackish).

Color.—*Type* (acquiring summer pelage): Head, shoulders, and fore back cinnamon-buff, strongly washed with fuscous-black; sides and hinder back (in worn winter pelage) smoke gray, faintly washed with pinkish buff; ears chaetura drab, margined with buffy white; feet pale pinkish buff; soles hair-brown; palms soiled buffy white; underparts soiled whitish, faintly washed with light buff. *Winter pelage* (specimen from Jackson, Wyoming, September 19): General tone of upperparts between drab and wood brown, shading on sides to light pinkish cinnamon; front of face washed with clay color; head and back washed with fuscous; rump blotched with blackish; underparts soiled white, faintly washed with pinkish buff; ears deep mouse gray; feet pinkish buff.

Skull.—Closely similar to that of *uinta*; larger than that of *princeps*, with longer nasals.

Measurements.—*Type* (adult ♂): Total length, 186; hind foot, 31. *Skull*: Occipito-nasal length, 44; zygomatic breadth, 21.5; breadth of cranium 17.8; interorbital breadth, 4.6; width of palatal bridge, 2; length of nasals, 15.

Remarks.—This race occupies the Wind River, Gros Ventre, Absaroka, and Teton Ranges in northwestern Wyoming and the Beartooth Mountains in southwestern Montana. It is closely related to *uinta*, as shown by the skull; the coloration in all pelages is more grayish and less buffy, this difference being most strikingly shown in the worn winter pelage of June or July specimens.

Ochotona uinta lemhi, subsp. nov.

Type.—No. $\frac{23}{30} \frac{51}{51} \frac{3}{1}$, U. S. National Museum, Biological Survey collection; ♀ adult, skin and skull; from Lemhi Mountains, 10 miles west of Junction, Idaho; collected August 19, 1890, by Clark P. Streater; original number 174.

Subspecific characters.—Size small (much smaller than *ventorum*; slightly smaller than *princeps*); color in summer pelage similar to *ventorum* but paler; much paler than *princeps*; in winter pelage nearest to *princeps*, but paler and more grayish.

Color.—*Type* (acquiring summer pelage): Head, shoulders, and fore back cinnamon buff, washed with fuscous; hinder back (retaining worn winter pelage) smoke gray, washed with fuscous; sides grayish white, washed with pinkish buff; feet pinkish buff, the soles hair-brown; ears externally chaetura black, internally fuscous, with light buff hairs, the margins light buff; underparts soiled whitish, moderately washed with pinkish buff.

Skull.—Similar to that of *ventorum*, but shorter and relatively broader;

averaging slightly smaller than that of *princeps*, the nasals narrower posteriorly.

Measurements.—*Type* (adult ♀): Total length, 180; hind foot, 28. *Skull*: Occipito-nasal length, 41.3; zygomatic breadth, 20.4; breadth of cranium, 17; interorbital breadth, 4.8; width of palatal bridge, 2.1; length of nasals, 14.3.

Remarks.—The Lemhi pika is most nearly related to *ventorum*, with which it intergrades in southwestern Montana (Emigrant Peak, Park County). A large series is available from the type locality, and smaller series from Little Lost River Mountains, Ketchum, Stanley Lake, the head of Wood River, and mountains east of Birch Creek, Idaho.

***Ochotona uinta nevadensis*, subsp. nov.**

Type.—No. 94,213, U. S. National Museum, Biological Survey collection; adult female, skin and skull; from Ruby Mountains, southwest of Ruby Valley P. O., Nevada, altitude 10,500 feet; collected June 21, 1898, by Vernon Bailey; original number 6580.

Subspecific characters.—Similar in worn winter pelage to *uinta*, but distinctly paler, and sides of nose and face more extensively grayish. Compared with *cinnamomea*: Color very much paler; skull larger, with much broader palatal bridge and longer nasals. Compared with *lemhi*: Size smaller; skull flatter; nasals broader posteriorly.¹

Color.—*Type* (in worn winter pelage): Upperparts mixed pinkish buff and fuscous, darkest in the median line and on front of face; sides of nose and face smoke gray; ears fuscous, margined with light buff; sides pinkish buff; feet pale pinkish buff; soles drab; palms soiled buffy white; underparts grayish white, moderately washed with pinkish buff.

Skull.—Closely similar to that of *uinta*, with long, wide nasals and broad palatal bridge.

Measurements.—*Type* (adult female): Total length, 200; hind foot, 32; occipito-nasal length, 44.1; zygomatic breadth, 21.2; breadth of cranium, 18; interorbital breadth, 5.2; width of palatal bridge, 2.8; length of nasals, 14.5.

Remarks.—The Ruby Mountains pika, as shown by its skull characters, is most nearly related to *uinta* of the high mountains of eastern Utah, the ranges of the two forms being separated by the Great Salt Lake Desert. It is widely different from *cinnamomea* of the Beaver Mountains, the latter being in the *schisticeps* group. At present the new form is known only from two adults and one young specimen in worn winter pelage; additional material in fresh summer or fall pelage is needed before a complete description can be prepared.

***Ochotona saxatilis incana*, subsp. nov.**

Type.—No. 128,914, U. S. National Museum, Biological Survey collection; ♀ adult, skin and skull; from Pecos Baldy, New Mexico, altitude 12,000 feet; collected August 10, 1903, by Vernon Bailey; original number 8079.

¹Color differences not definable, through lack of comparable material.

Subspecific characters.—Similar in size and coloration to *O. saxatilis saxatilis*, but general tone of upperparts in summer pelage paler and less tawny; in winter pelage more grayish and less ochraceous. Compared with *nigrescens*: Upperparts paler and more buffy.

Color.—*Type* (acquiring summer pelage): General tone of upperparts between cinnamon-buff and pinkish buff, moderately washed with fuscous or fuscous-black; sides cinnamon-buff, shading posteriorly to pinkish buff; rump (in worn winter pelage) smoke gray; ears chaetura black, margined with buffy white and blotched on inner surface with the same color; feet pinkish buff, washed with cinnamon-buff; soles chaetura drab; palms soiled whitish, tinged with drab; underparts soiled whitish, washed with pinkish buff.

Skull.—Closely similar to that of *saxatilis*, but nasals averaging slightly shorter.

Measurements.—*Type* (adult ♀): Total length, 202; hind foot, 33. *Skull*: Occipito-nasal length, 46.8; zygomatic breadth, 22.5; breadth of cranium, 19; interorbital breadth, 5.3; width of palatal bridge, 2.5; length of nasals, 15.8.

Remarks.—This form is closely related to *saxatilis*, of the Colorado Mountains, but is widely different from *nigrescens* of the Jemez Mountains, New Mexico. Its range includes the Pecos River, Taos, and Culebra Ranges in northern New Mexico, extending, probably, into Colorado as far as Sierra Blanca.

Ochotona fenisex brunnescens, subsp. nov.

Type.—No. 227,259, U. S. National Museum, Biological Survey collection; ♂ subadult, skin and skull; from Keechelus, Washington; collected August 23, 1917, by George G. Cantwell; original number, 38 (19568, "X" catalogue).

Subspecific characters.—Similar (in winter pelage) to *fenisex*,¹ but upperparts decidedly browner (less grayish) and underparts more buffy.

Color.—*Type* (in fresh pelage, August 23): Upperparts mixed cinnamon and fuscous, the general tone near snuff brown; sides deep pinkish cinnamon, shading to light pinkish cinnamon; ears chaetura black, margined with buffy white; feet soiled whitish, washed with light pinkish cinnamon; soles chaetura black; palms hair-brown; underparts light pinkish cinnamon.

Skull.—Similar to that of *fenisex* but averaging larger, with relatively shorter nasals.

Measurements.—*Type* (subadult ♂): Total length 200; hind foot, 33. *Skull*: Occipito-nasal length, 42.9; zygomatic breadth, 22.1; breadth of cranium, 18.4; interorbital breadth, 5.6; width of palatal bridge, 2.6; length of nasals, 14.1.

Remarks.—The Cascade pika is a strongly marked race, and has an extensive range on the high Cascades, from the vicinity of Chilliwack in

¹As distinguished by specimens from near Okanagan, British Columbia, and Horse-shoe Basin, near Mt. Chopaka, Washington.

southwestern British Columbia south to Crater Lake, Oregon. It has been identified by most recent writers¹ with *Lagomys minimus* Lord (= *Ochotona fenisex* Osgood), but material now in hand indicates that the latter is a paler animal, occupying the interior ranges to the eastward of the main Cascade Range.

***Ochotona fenisex fumosa*, subsp. nov.**

Type.—No. 91,144, U. S. National Museum, Biological Survey collection; ♂ adult, skin and skull; from Permilia Lake, west base Mt. Jefferson, Oregon; collected October 4, 1897, by J. Alden Loring; original number 4799.

Subspecific characters.—Similar to *O. fenisex brunnescens*, but coloration darker, with much black on dorsal surface in fresh winter pelage.

Color.—*Type* (in winter pelage): Upperparts a mixture of vinaceous-cinnamon and black, the median dorsal area nearly solid black, shading on sides to nearly clear vinaceous-cinnamon; sides of nose dark smoke gray and top of head shaded with the same; sides of neck, beneath ears, washed with cinnamon-buff; ears chaetura black, edged with buffy white; feet cinnamon-buff; soles chaetura drab; palms hair-brown; underparts soiled whitish, strongly washed along middle of belly with vinaceous-cinnamon, shading on throat to pinkish cinnamon. *Summer pelage* (specimen from Three Sisters, Oregon, July 15): Similar to the winter pelage, but upperparts less blackish, less buffy, and more strongly shaded with grayish.

Skull.—Similar to that of *brunnescens*, but averaging slightly narrower; posterior border of palate with a very small spine in the middle of the post-palatal notch.

Measurements.—*Type* (♂ adult): Total length, 202; hind foot, 33. *Skull*: Occipito-nasal length, 44.5; zygomatic breadth, 21.3; breadth of cranium, 18.2; interorbital breadth, 5.3; width of palatal bridge, 2.4; length of nasals, 15.4.

Remarks.—This is a very dark form, occupying the western slopes of the Cascade Range in Oregon. It is known at present from the west slope of Mt. Jefferson, Three Sisters, Mackenzie Bridge, and Clackamas River, 15 miles above Estacada.

***Ochotona schisticeps jewetti*,² subsp. nov.**

Type.—No. 208,352, U. S. National Museum, Biological Survey collection; adult ♂, skin and skull; from head of Pine Creek, near Cornucopia, south slope Wallowa Mts., Baker County, Oregon; collected September 3, 1915, by Stanley G. Jewett; original number 2362.

Subspecific characters.—Nearest to *O. schisticeps schisticeps*, but paler in summer pelage, and slightly darker in winter pelage; decidedly darker than *O. schisticeps muiri*, in both summer and winter; paler (less blackish) than *O. s. taylora* in both pelages.

¹See especially, Bangs, Proc. New England Zool. Club, I, p. 39, 1899.

²Named for Mr. Stanley G. Jewett in recognition of his excellent field work on Oregon mammals.

Color.—*Type* (summer pelage): Upperparts light pinkish cinnamon, mixed with fuscous; sides of nose pale smoke gray; sides of face, occiput, and nape washed with the same; ears chaetura drab, margined with grayish white and faintly washed with the same inside; sides light pinkish cinnamon; feet grayish white, washed with light pinkish cinnamon; soles chaetura drab; palms grayish white, washed with drab; underparts grayish white, washed with light pinkish cinnamon. *Winter pelage:* Closely similar to *schisticeps* in the corresponding pelage, but slightly darker.

Skull.—Closely similar to that of *schisticeps*.

Measurements.—Average of 12 adults (6 males, 6 females) from type region: Total length, 182 (165–195); hind foot, 31 (30–32). *Skull.*—*Type* (♂ adult): Occipito-nasal length, 42.6; zygomatic breadth, 21.6; breadth of cranium, 19; interorbital breadth, 5.2; width of palatal bridge, 1.5; length of nasals, 13.7.

Remarks.—The pika of the Blue Mountains is most nearly related to *O. schisticeps schisticeps* of the high Sierra Nevada; its range, however, is separated from that of *schisticeps* by the intervening lava bed region, occupied by *O. schisticeps taylori*.

***Ochotona schisticeps fuscipes*, subsp. nov.**

Type.—No. 158,094, U. S. National Museum, Biological Survey collection; ♂ adult, skin and skull; from Brian Head, Parawan Mts., Utah; Collected September 7, 1908, by Wilfred H. Osgood; original number 3475.

Subspecific characters.—Similar to *O. cinnamomea* but larger, with larger and relatively broader skull; coloration above more blackish and less intensely cinnamon; very similar to *O. schisticeps taylori*, but general tone pinkish cinnamon, rather than vinaceous cinnamon; head paler and more grayish; underparts paler.

Color.—*Type* (summer pelage): Upperparts mixed light pinkish cinnamon and fuscous-black (the blackish prevailing); tip of nose fuscous-black; sides of nose and face smoke gray, tinged with buff and washed with fuscous; back of head and nape washed with pale neutral gray; ears fuscous-black, margined with buffy white; sides pinkish cinnamon mixed with fuscous, becoming clear pinkish cinnamon along line of belly; hind feet soiled whitish, washed with pale cinnamon-buff, the soles fuscous; front feet cinnamon-buff, the palms hair-brown; underparts grayish white, heavily washed with pinkish cinnamon.

Skull.—Similar to that of *cinnamomea*, but larger and relatively broader, with larger audital bullae.

Measurements.—*Type* (adult ♂): Total length, 195; hind foot, 30.5; average of 4 adult females: 201; 30.2. *Skull* (of type): Occipito-nasal length, 41.7; zygomatic breadth, 21.4; interorbital breadth, 5; width of palatal bridge, 1.4; length of nasals, 12.3.

Remarks.—This race, at present known only from the Parawan Range, is based on a series of 5 adults and one young in summer pelage. Although occupying a range of mountains practically continuous with the Beaver Range—the home of *O. cinnamomea*—the present form is apparently much more closely related to *schisticeps* of the northern high Sierra and to *taylori* of southern Oregon than it is to *cinnamomea*. Its range is separated, however, from the ranges of these forms by a broad expanse of desert.